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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,892	01/29/2002	Roger L. Hipwell	S01.12-0858/STL 10384	9597
27365	7590	01/11/2006	EXAMINER	
SEAGATE TECHNOLOGY LLC C/O WESTMAN CHAMPLIN & KELLY, P.A. SUITE 1400 - INTERNATIONAL CENTRE 900 SECOND AVENUE SOUTH MINNEAPOLIS, MN 55402-3319			CAO, ALLEN T	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/059,892

Applicant(s)

HIPWELL ET AL.

Examiner

Allen T. Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42,43,45,46,48-53,56-59 and 61 is/are rejected.
- 7) ☒ Claim(s) 44,47,54,55 and 60 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 42-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al (US. 2003/0157426 A1) in view of Bonin (US. 6,351,354 B1).

Jordan discloses an interconnect assembly for a microstructure having base 14 having first and second opposing surfaces, a cavity 18, a trench 34 extending into the base from the first opposing surface, wherein the trench includes a distal end adjacent to the cavity, and a bond pad 20, as set forth in claims 42, 50 and 56.

Jordan does not disclose that the bond pad 20 is formed on the sidewall of the cavity adjacent to the trench.

Bonin discloses an interconnect assembly for a microstructure having a base 40 having first and second opposing surfaces (figure 4), a cavity 51 (the hole for inserting the head slider 24, figure 4) extending into the base from the first opposing surface, traces located on the base 40 adjacent to the cavity 51, and bond pads (60a-60d) formed on the side wall of the cavity.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to relocate the bond pad of Jordan to form on the side wall of the cavity as set forth, supra as taught by Bonin.

The rationale is as follows: One of ordinary skill in the art would have been motivated to relocate the bond pad of Jordan to form on the side wall of the cavity as set

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forth, supra as taught by Bonin to improve the technique for electrically interconnecting the transducing head and the disc drive flexure.

Regarding claims 43, 50, 56 and 58, Jordan discloses that the base includes a lead 30 formed in the trench.

Regarding claim 45, Bonin discloses that the bond pad includes a raised surface spaced from the side wall of the cavity (figure 4).

Regarding claims 48 and 52, Bonin discloses the microstructure 24 disposed in the cavity 51 and the microstructure including at least one bond pad (52a-52d) to interface with the bond pad formed on the side wall of the cavity.

Regarding claim 49, Bonin discloses that the side wall has a general vertical orientation when the first and the second opposing surfaces are oriented generally horizontally.

Regarding claims 46, 51, 57 and 61, Bonin inherently discloses that the bond pads are embedded in the sidewall of the cavity (except the raised surfaces).

Regarding claims 53 and 59, Bonin discloses that the microstructure body is a slider including at least one transducer element.

3. Claims 44, 47, 54-55 and 60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T. Cao whose telephone number is (571) 272-7569. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Cao
Primary Examiner

AC
January 4, 2005